

HTL

Compliance Test Report



FLORIDA GEORGIA TEXAS
HTLTEST.COM

CORAL ARCHITECTURAL PRODUCTS

“FB-300T Framing System”

HTL Report # G402-0703-07



August 30, 2007

Mr. Grant McAllister
CORAL ARCHITECTURAL PRODUCTS
3010 Rice Mine Road
Tuscaloosa, Alabama 35406

FLORIDA | GEORGIA | TEXAS

CORPORATE HEADQUARTERS
6655 Garden Road
Riviera Beach, Florida 33404
HTLTEST.COM

Re: HTL # G402-0703-07

Dear Mr. McAllister;

Enclosed you will find the test report package for the FL-300T Framing System tests that were performed at Hurricane Test Laboratory, LLC (HTL) in Lithia Springs, Georgia.

This test report package includes the following items:

- Cover Letter
- HTL test report # G402-0703-07 for Specimen # 1 – 2
- Drawings

If you have any questions, please contact our office.

Sincerely,

HURRICANE TEST LABORATORY, LLC

Vinu J. Abraham, P.E.
FL Reg. # 53820



TEST REPORT



HURRICANE TEST LABORATORY, LLC
1701 WESTFORK DRIVE, SUITE 106
LITHIA SPRINGS, GEORGIA 30122
(770) 941-6916
FAX (770) 941-2930
www.htltest.com

Report #: G402-0703-07
Specimen # 1 – 2
Test Date: 7/9-10/07
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MANUFACTURER’S IDENTIFICATION

- 1.0 NAME OF APPLICANT:** CORAL ARCHITECTURAL PRODUCTS
 3010 Rice Mine Road
 Tuscaloosa, Alabama 35406
 (800) 772-7737
- 2.0 CONTACT PERSON:** Grant McAllister
- 3.0 HTL TEST NOTIFICATION #:** N/A
- 4.0 HTL LAB CERTIFICATION:** Miami-Dade County (04-0806.02)
 Florida Building Code (TST3892)
 IAS (TL-338)

PRODUCT IDENTIFICATION

- 5.0 Product Type:** Aluminum Glazed Wall Section
- 6.0 Model Number:** FL-300T FRAMING SYSTEM
- 7.0 Performance Class:**

Specimen #	Design Pressure
1 (Coral Elevation E1)	+/- 35 psf
2 (Coral Elevation E2)	+65/- 60 psf

- 8.0 Overall Sample Size:**

Specimen #	Size
1 (Coral Elevation E1)	146" (w) x 96" (h)
2 (Coral Elevation E2)	146" (w) x 96" (h)

- 9.0 Configuration:** Both test units consisted of three (3) bays. See Coral drawings "FL300T_01", sheets 2 and 3 of 6 for an elevation of these test units.
- 10.0 Drawing:** This report is incomplete if not accompanied by Coral Architectural Products Drawing "FL300T_01" and accompanying sheets bearing the stamp of Hurricane Test Laboratory, LLC.
- 11.0 Sample Source:** Samples provided by Coral Architectural Products.

PRODUCT DESCRIPTION

- 12.0 Frame Assembly:** The frame used in this sample was fabricated using the following aluminum extrusions:

Description	Part #
Vertical Mullion	FL334T
Open Back Mullion Filler- Shallow	FL325T
Horizontal Mullion	FL326T
Glass Stop	FL303
Sill/Head	FL322T
Subsill Flashing	FL339T
Heavy Vertical Mullion	FL316T
End Dam	ED339-1
Thermal Head/Jamb	FL321T

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The following procedures (typical) were utilized when assembling this individual frame:
Frame Corner Construction: At each frame corner, the vertical frame members ran through while the horizontal frame member was butted and mechanically fastened using two (2), #14 x 1" HHSTS per corner.
Frame Joint Sealant: Each frame joint was sealed using a bead of Dow Corning 795 Silicone Sealant.

13.0 Glazing:

13.1 Glazing Material: The glazing material used in this sample was 1" insulated glass with the following components:

- 1/4" tempered glass
- 1/2" air space
- 1/4" tempered glass

13.2 Glazing Method: Each glass lite used in this sample was glazed using the following (typical) procedures:

Interior/Exterior Side: Using continuous strips of an extruded EPDM gasket (Part #NG1). Each corner of the gasket is sealed using a 2" long cap bead of Dow Corning 795 Structural Silicone Sealant in both directions of the gasket.

13.3 Daylight Opening:

Specimen # 1 (Elevation E1) & 2 (Elevation E2)		
Qty.	Daylight Opening	Glass Bite
3	46" (w) x 42" (h)	7/16"
3	46" (w) x 48" (h)	

14.0 Sealant's Used:

Location	Sealant
Perimeter Sealant	Dow Corning 795 Silicone Sealant
Frame Joint Sealant	
Internal Sealant	Dow Corning 995 Silicone Sealant

INSTALLATION

15.0 Following is a description of how this sample was installed in the steel test buck when viewed from the exterior side:

Location	Anchor Description & Schedule
Frame Head and Sill.	The frame head and sill are attached to the opening using 1/4" x 1-1/4" HHW Tek Screws located 2" from the ends and 2" on each side of the vertical mullions.
Frame Jambs	None Used

NOTE: There is a 1/4" shim space used around the entire perimeter of this test sample.

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TEST RESULTS

16.0 SUMMARY OF RESULTS:

Specimen # 1 (CORAL Elevation E1)			
Test Method	Test Conditions	Measured	Allowed
Air Infiltration Test (ASTM E283)	1.57 psf	0.002 cfm/ft ²	0.060 cfm/ft ²
	6.24 psf	0.010 cfm/ft ²	0.060 cfm/ft ²
Water Infiltration Test (ASTM E331)	15 psf	PASSED per ASTM E331	
Uniform Load Deflection Test (ASTM E330)	+ 35 psf	Deflection	
		Left Vertical Mullion	
		0.451"	0.533"
	Center Horizontal		
	0.045"		0.256"
	- 35 psf	Left Vertical Mullion	
0.424"		0.533"	
Center Horizontal			
0.049"		0.256"	
Uniform Load Structural Test (ASTM E330)	+ 52.50 psf	Permanent Set	
		Left Vertical Mullion	
		0.006"	0.192"
	Center Horizontal		
	0.005"		0.092"
	- 52.50 psf	Left Vertical Mullion	
0.004"		0.192"	
Center Horizontal			
0.026"		0.092"	

• THESE TESTS WERE COMPLETED ON 7/9/07

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Specimen # 2 (CORAL Elevation E2)			
Test Method	Test Conditions	Measured	Allowed
Uniform Load Deflection Test (ASTM E330)	+ 65 psf	Deflection	
		Left Vertical Mullion	
		0.500"	0.533"
	- 60 psf	Center Horizontal	
		0.063"	0.256"
		Left Vertical Mullion	
Uniform Load Structural Test (ASTM E330)	+ 97.5 psf	Permanent Set	
		Left Vertical Mullion	
		0.017"	0.192"
	- 90 psf	Center Horizontal	
		0.012"	0.092"
		Left Vertical Mullion	
		0.014"	0.192"
		Center Horizontal	
		0.046"	0.092"

• THESE TESTS WERE COMPLETED ON 7/10/07

MISCELLANEOUS INFORMATION

17.0 CERTIFICATION & DISCLAIMER STATEMENT:

All tests performed on this test specimen were conducted in accordance with the specifications of the applicable codes, standards & test methods listed below by the Hurricane Test Laboratory, LLC located at 1701 Westfork Drive, Suite 106, Lithia Springs, Georgia 30122. HTL does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products tested at HTL. HTL is not owned, operated or controlled by any company manufacturing or distributing products it tests. This report is only intended for the use of the entity named in section 1.0 of this report. Detailed assembly drawings showing wall thickness of all members, corner construction and hardware applications are on file and have been compared to the test specimen submitted. A copy of this test report along with representative sections of the test specimen will be retained at HTL for a period of four (4) years. All results obtained apply only to the specimen tested and they do indicate compliance with the performance requirements of the test methods and specifications listed in the following section. Please note that a copy of this report will be forwarded to the AAMA Validator if requested and that this report does not constitute AAMA certification of this product, which may only be granted by the AAMA Validator.

18.0 APPLICABLE CODES, STANDARDS & TEST METHODS:

ASTM E283-04 - Standard Test Method For Determining The Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences.

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ASTM E330-02 - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.

ASTM E331-00 - Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.

AAMA 501-05 - Methods of Tests for Exterior Walls

19.0 LIST OF OFFICIAL OBSERVERS:

Vinu J. Abraham, P.E. - HTL, CEO

José E. Colón, E.I. - HTL, Operations Manager

Kevin Rouse - HTL

Ian McKenzie - HTL

Al Fite - HTL

James Bateman - CORAL ARCHITECTURAL PRODUCTS

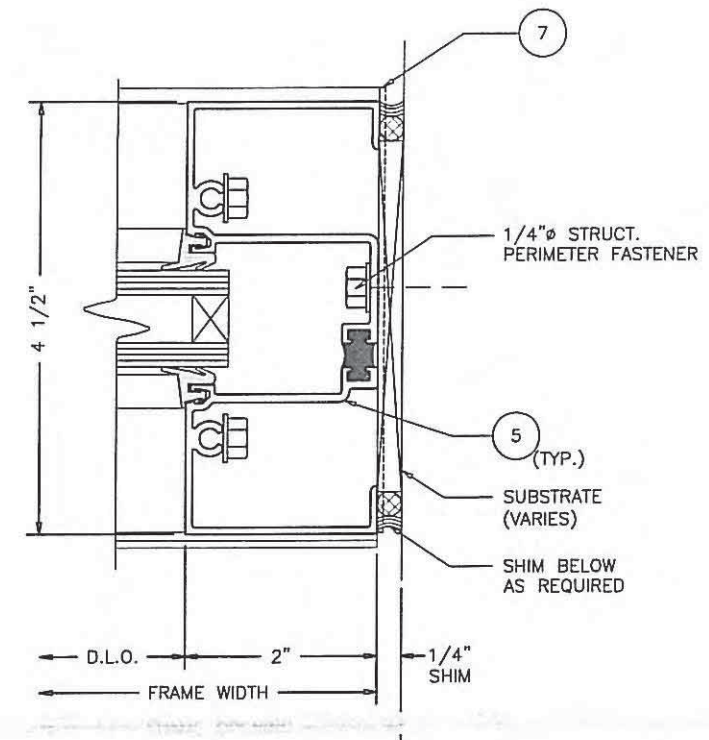
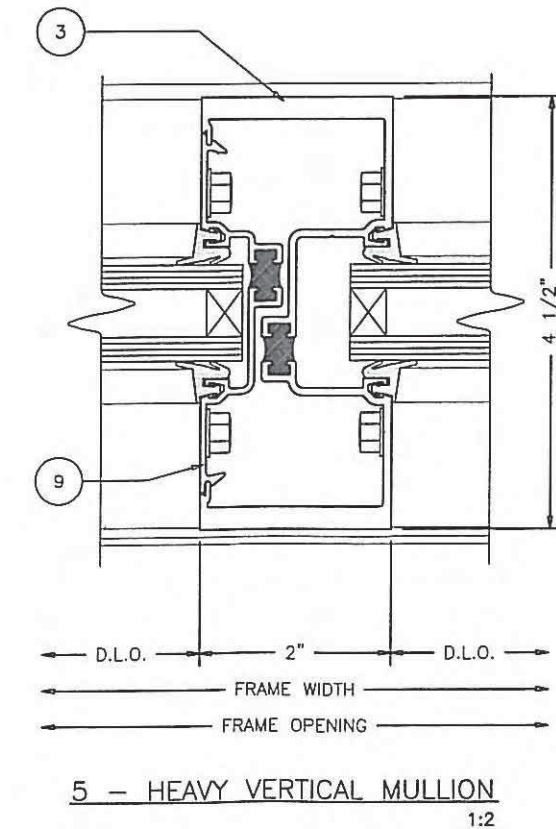
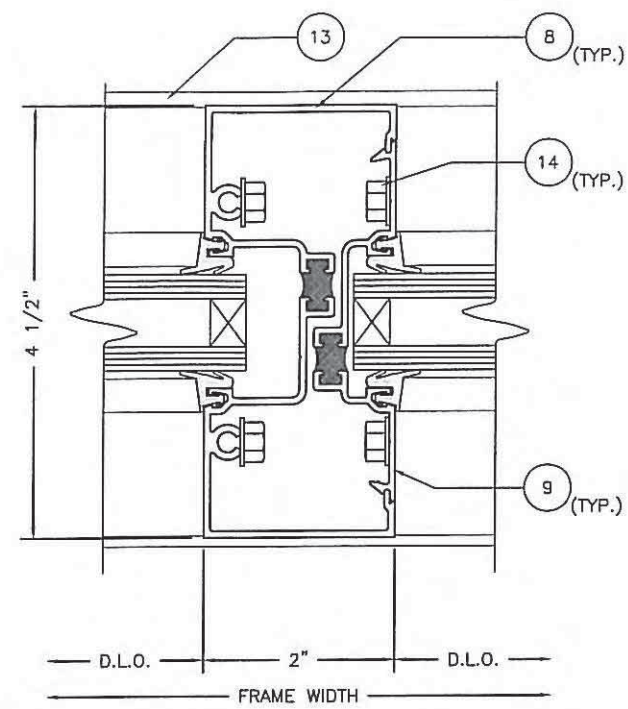
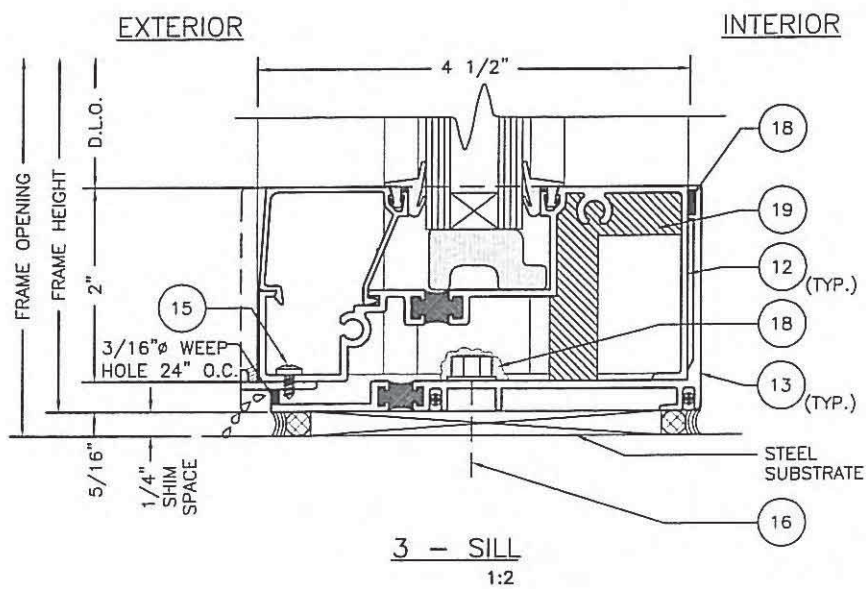
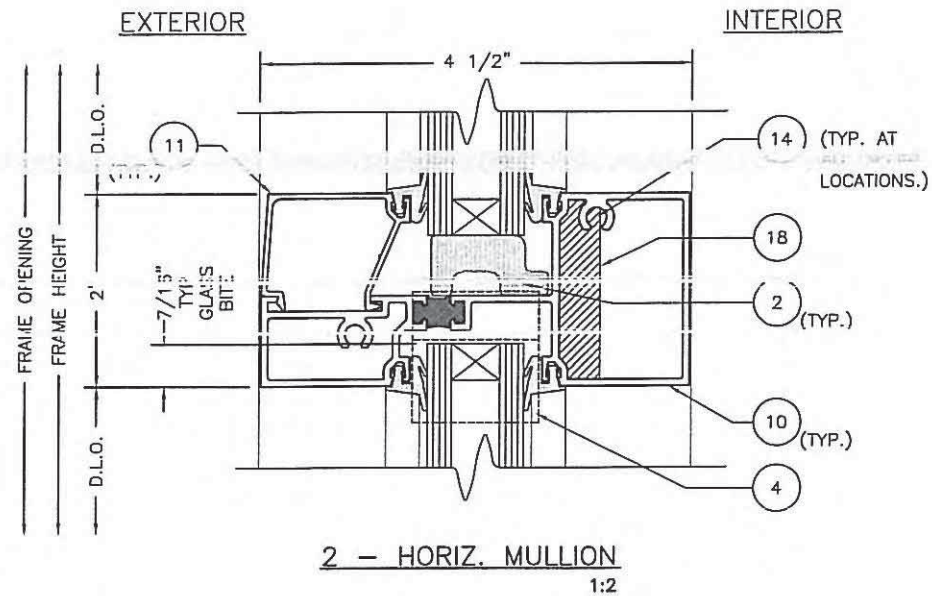
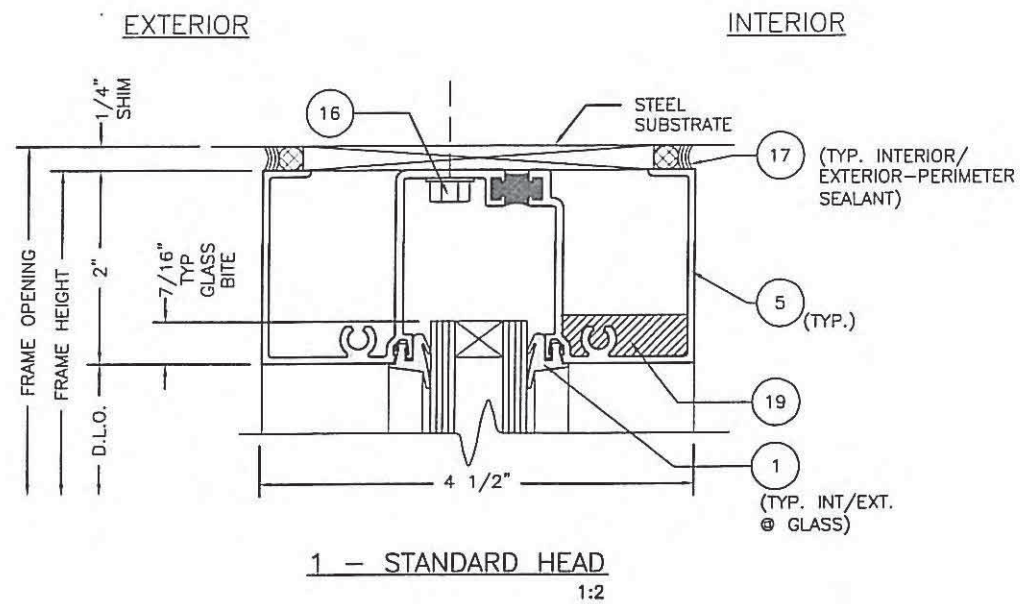
Grant McAllister - CORAL ARCHITECTURAL PRODUCTS

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DRAWINGS



Hurricane Test Laboratory




Tested unless
Otherwise Noted
Date 7/12/07
Job # 6-402-0703-01

HTL TEST REPORT DRAWINGS FOR
FL300T FRAMING SYSTEM

FRAMING DETAILS

DATE	7/19/2007	
DRAWN	CHECKED	APPROVED
MLL	JDW	JDW
PROJECT NO.	HTL TEST	
DRAWING NO.	FL300T_01	
SHEET	4 OF 6	



Coral
Structural Products
3010 RICE ROAD, TUSCALOOSA, AL 35406
PHONE: 205-772-7757 FAX: 800-255-7320

REV	BY	DATE	DESCRIPTION

BILL OF MATERIALS

ITEM NO.	PART #	DESCRIPTION	DIMENSIONS	MATERIAL	MANUFACTURER	NOTES
1	NG1	GLAZING GASKET EXTERIOR/INTERIOR	.197 SPACE	EPDM	VARIES	EXTERIOR/INTERIOR @ GLASS
2	SB3	SETTING BLOCK AT INTERM. HORI/SILL	0.625 X 4.000 X 1.500	EPDM	VARIES	4" LONG
3	FL316T	HEAVY VERTICAL MULLION	2.000 X 4.000 X 0.190	6063-T6 ALUMINUM	VARIES	
4	WD300-1	WATER DEFLECTOR	1.358 X 1.500 X 0.040	INJECT ION MOLDED PLASTIC	CORAL	LOCATE ONE AT EACH END OF EACH ITEM #10
5	FL321T	THERMAL HEAD/JAMB	2.000 X 4.500 X 0.700	6036-T6 ALUMINUM	CORAL	
6	NOT USED					
7	ED339-1	END DAM	3.313 X 4.813 X 0.063	RIGID PVC	CORAL	
8	FL334T	VERTICAL MULLION	2.000 X 4.500 X 0.070	6063-T6 ALUMINUM	CORAL	
9	FL325T	OPEN BACK MULLION FILLER - SHALLOW	0.852 X 3.750 X 0.062	6063-T6 ALUMINUM	CORAL	
10	FL326T	HORIZONTAL MULLION	2.000 X 4.460 X 0.062	6063-T6 ALUMINUM	CORAL	
11	FL303	GLASS STOP	1.207 X 1.543 X 0.060	6063-T6 ALUMINUM	CORAL	
12	FL322T	SILL/HEAD	2.000 X 4.460 X 0.070	6063-T6 ALUMINUM	CORAL	
13	FL339T	SUBSILL FLASHING	2.312 X 4.766 X 0.076	6063-T6 ALUMINUM	CORAL	
14	AS16	SPLINE ASSEMBLY SCREW	#14 X 1" HHSTS	STEEL	VARIES	TYPICAL SPLINE SCREW
15	AS31	ASSEMBLY SCREW	#6 X 1/4" PPH	STEEL	VARIES	
16	FASTENER	FOR ATTACHING FRAME TO STEEL SUBSTRATE	1/4" X 1 1/4" TEK	STEEL	VARIES	
17	795	SEALANT	FILL SPACE	SILICONE	DOW	PERIMETER SEALANT
18	995	SEALANT	FILL SPACE	SILICONE	DOW	INTERNAL SEALANT
19	SM5601	JOINT SEALANT TAPE	1/8" X 1/2" VARIES	BUTYL	SCHNEE-MOREHEAD	USED AT HORIZ. TO VERT. JOINT INTERSECTIONS

GLAZING SCHEDULE				
GLASS MARK SYMBOL	GLASS TYPE	MANUFACTURER	MAXIMUM D.L.O. SIZE	MAXIMUM SQUARE FEET
A	1/4" TEMPERED OUTER SURFACE, 1/2" AIR SPACE, 1/4" TEMPERED INNER SURFACE	VARIES	46" x 48"	15.3

Hurricane Test Laboratory



Tested unless
Otherwise Noted

Date 9/12/07
Job # 6402-0703-07

DATE 7/19/2007

DRAWN MLL CHECKED JDW APPROVED JDW

PROJECT NO. HTL TEST

DRAWING NO. FL300T_01

SHEET 6 OF 6

HTL TEST REPORT DRAWINGS FOR
FL300T FRAMING SYSTEM

BILL OF MATERIALS

Structural Products
3010 RICE BLVD. ROAD, TUSCALOOSA, AL 35408
PHONE: 877-727-7737 FAX: 800-255-7320

REV	BY	DATE	DESCRIPTION